LANGLADE COUNTY

Wisconsin



Land Records Modernization Plan 2010

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LANGLADE COUNTY LAND RECORDS MODERNIZATION PLAN 2010

I. EXECUTIVE SUMMARY

A. Identification and contact information

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B. Participants/reviewers in plan revision process

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Jerry Katch, Post Lake Real Estate LLC
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Jeff Zalewski

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Peer review counties: As designated by the Wisconsin Department of Administration.

C. Summary of Plan

This document is an update the Langlade County Land Records Modernization Plan (Plan) as required by the Wisconsin Land Information Program (WLIP) and Wisconsin Land Information Board (WLIB). The original County plan was created in 1992 and revised in 1999. The format and content of this Plan revision are based upon the "UNIFORM INSTRUCTIONS FOR PREPARING COUNTY LAND INFORMATION PLANS" received from Peter Herreid, WLIP Grant Administrator, WiDOA. Said instructions dated December 2009. This Plan is intended to provide local officials, state agencies, private entities and other interested parties with basic knowledge of Langlade County's efforts in land records modernization, its direction and its future goals.

Since 1992 when the original Plan was adopted, Langlade County has completed or implemented numerous objectives mentioned in the Plan. Those major items include: changing the County Surveyor status from part-time elected to full-time appointed, filling the full-time County Surveyor position, purchasing high-tech survey equipment, both conventional and GPS equipment, Public Land Survey System (PLSS) monumentation, completion of 12 survey townships of parcel mapping, hiring personnel (Land Records Technician) for parcel mapping, hiring a contractor to assist with parcel mapping, surveying a geodetic control network, implementing an on-line Geographic Information System (GIS) and other items. Since the 2005 Plan Revision, the focus has been on parcel mapping and well over half the parcels have been

mapped. Funding problems cause parcel mapping to proceed at a slower that anticipated rate but complete parcel mapping remains the primary focus.

The focus with this plan revision is to finalize countywide parcel mapping. As of May, 2010, more than half the parcels in the County have been mapped. The initial mapping efforts concentrated on areas with the most parcel density, not the most land area. So although more than half the parcels are mapped, the mapping covers only about 45% of the land area of the County.

To accomplish the countywide parcel mapping goal, steady funding levels are needed; any reductions will be a delay in reaching the goal. It is the current intent of the County that most of the parcel mapping will be through the hiring of a contractor. If funding levels are at a point where this is not feasible, the County will be required to either extend the date of completion or come up with internal changes to accomplish the goal.

Along with the parcel mapping effort, the County will continue to develop its Geographic Information Website and work to make more Land Information available over the Internet.

Langlade County has benefited from the Wisconsin Land Information Program (WLIP), and this Plan lays out a strategy for the County and users of land information to continue to benefit from the program.

D. Langlade County Land information Website address

The Langlade County website url is http://www.co.langlade.wi.us/ On that home page is a link to the GIS information site, accessed by clicking on the "GIS Public Access" button in the left column. The Langlade County Community Development agency maintains the Langlade County of Trails website at http://www.countyoftrails.com.

E. Other municipalities websites

Antigo, the County seat, has web accessibility through its website at: http://www.antigo-city.org/ Access to the City GIS information is through the "City Map & Info" button on the left side of the home page.

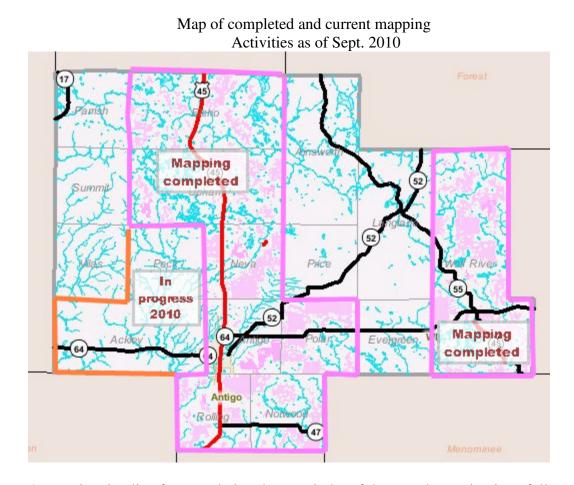
II. LAND INFORMATION PLAN

A. Goals and Objectives

1. GOAL: Finalize parcel mapping, based on PLSS (Public Land Survey System) monumentation and accurate coordinates, for the entire County.

From about 1993 through 1996, parcel mapping in Langlade County had been based on whatever survey information was available. It was known that some of this survey information may not be accurate. In addition to the questionable accuracy of the base

data, very few of the parcel maps had been tied to the County Coordinate system. The inaccuracies of these parcel maps along with the lack of a common coordinate system basis made it very difficult to simply join adjacent maps. In 1997, a full-time parcel mapper was hired and in 1999, GPS equipment was purchased – two main factors that resulted in more parcel mapping, faster and tied into the County coordinate system. In 2003, a parcel mapping contractor was hired to speed up the process. As September 2010, 11 survey townships have been completed and on-line, while one and a third survey townships (31-14 and part of 31-15) are recently finished and will be online in the very near future.



A tentative timeline for completing the remainder of the parcel mapping is as follows:

2010	Finished 31-14	(contract), 31-	15 (in-house)
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	2010	Township	s 31-09	. 31-10	& 32-10.	. currentl	y under contrac
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- 2011 Townships 32-09, 31-13 and 32-12
- 2012 Townships 33-09, 32-13 and 33-13
- 2013 Townships 34-09, 33-12 and 34-12

OBJECTIVES:

Attempt to stay on the schedule of the remaining townships to be parcel mapped by continually monitoring available funds and the primary funding source, the base budget grant, Continue remonumentation and perpetuate PLSS corners as needed, to control parcel mapping. Determine coordinates on PLSS corners in the remaining areas to be parcel mapped. Complete all of the parcel mapping. Continue to improve the accuracy of parcel mapping by upgrading and refining PLSS coordinates in previously mapped areas.

GOAL: Continue the development, implementation and maintenance of a Geographic Information System (GIS). One that is horizontally and vertically integrated and one that provides useful, quality and readily accessible data for its staff, citizens, private industry and other government agencies.

OBJECTIVES:

Continue development of a web-based GIS with upgrades and by adding additional data resources. Establish the newly required County Land Information Council. Take advantage of education opportunities for staff and local officials. Emphasize City, County, Village and Town cooperation. Encourage other county departments to leverage existing information as needed to improve workflow and services, for programs such as emergency response including 911, economic development, public health and safety, tourism and planning. Continue education program for the general public regarding the benefits and uses of land records modernization. Continue development and enhancement of a public access website, striving to make more information available online.

- a. The County has a Geodetic Control network that it currently uses as a basis for generating accurate coordinates on PLSS (Public Land Survey System) corners. The County will continue its cooperation with adjoining Oneida, Lincoln, Shawano and Oconto Counties, the Chequamegon-Nicolet National Forest, private surveyors, the Bureau of Land Management (in their survey of the common Langlade County Menomonie Reservation boundary) and the Wisconsin Department of Transportation by exchanging control information on an 'as needed' basis.
- b. The County needs to acquire accurate coordinate data on PLSS corners in order to support parcel mapping. The major problems with acquiring these coordinates are time (if done internally) and cost (if contracted out). The County knows that conventional traverse methods are very time consuming (costly) and therefore tries to obtain these coordinates using GPS equipment. So as to not delay parcel mapping, some coordinates will be obtained using GPS data applied to existing survey information. Most likely the coordinates will be obtained internally by the County Surveyor but we will take advantage of any opportunities that arise for the acquisition of coordinates including sharing/exchanging data with the above cooperating entities. The County also needs accurate addressing

information for use in conjunction with parcel mapping, routing applications, emergency response agencies and planning activities and will pursue means to acquire this information. Proper addressing is imperative and grant funds may be needed to expand/enhance the current addressing program.

- c. The county will ensure that the land information it has can be made available in a standard industry format for use by others, by continuing to use industry standard hardware and software and by acquiring and maintaining data on a defined coordinate system. By using industry standard products, the County takes the position that its' land information is readily translatable and easily retrievable. Our current GIS mapping system is the latest version of ESRI ArcGIS which is kept up to date via the ESRI annual support program. Exported data is normally shapefiles or coverages. Database exports have usually been Microsoft Excel or Access database files.
- d. The County will ensure that the information is geographically referenced for use by any state or local county/agency or public utility. To do this, Langlade County's spatial data is all relative to the Langlade County Coordinate System, developed by the Wisconsin Department of Transportation. This System is mathematically relatable to the North American Datum of 1983, 1991 adjustment {NAD 83(91)}.
- e. The county will ensure currency and continued maintenance of its digital land information by maintaining custodial responsibility assignments to individual employees or departments. This ensures that the digital land information is updated on a regular basis.
- 2. The County's Geographic Information System resides on a Windows 2000 server and is linked to the existing land records data currently residing on an IBM AS/400. The GIS data base design incorporates key fields, which will be used to tie the two systems together, thereby ensuring integration. Metadata issues will be addressed on an ongoing basis. Metadata is maintained for the GIS system data and for the tabular land records data.

B. Progress Report on Ongoing Activities

Since 1992 when the original Plan was adopted, Langlade County had completed or implemented numerous objectives mentioned in the Plan, including PLSS (Public Land Survey System) monumentation, parcel mapping, hiring personnel for parcel mapping, surveying a geodetic control network, obtaining conventional and GPS survey equipment, acquired large inkjet plotter, developed a PC network, initial GIS development and other items (see Appendix A). More detailed information on several of these activities is listed below. The existing AS400 system allows any user to access parcel information, tax information, grantor/grantee information and a tract index. Public access terminals to view the AS400 information are available in the

Treasurers office, Register of Deeds office and the Land Records and Regulations Dept. The creation of a GIS system will tie the AS400 information to maps.

Section corner coordinates

The acquisition of real-time GPS equipment in 2000 has tremendously increased the amount of corners that we have coordinates on. That equipment was updated in April of 2009 and allows for faster acquisition of coordinate because it utilizes the Russian GLONASS system in addition to the United States GPS system. The parcel mapping projects are now controlled by coordinate information. In many instances, instead of GPS'ing all corners in an area, only a few corners that show on existing, reliable survey records are GPS'ed and the rest of the corners shown on that record are then computed. This methods speeds things up and has been recognized as a very cost effective method of obtaining mapping grade or better, coordinates.

Parcel mapping

A reduction – most likely a result of the weak economy - in Land Information Program grant money has slowed the pace of parcel mapping to approximately 1½ townships per year, down from the estimated 2 -3 townships per year mentioned in the 2005 plan.. Prior to the availability of grant funds, mapping was being done at the rate of about a half township per year so we have improved, thanks to the WLIP. . Through July, 2005 we had 5 survey townships (East Elcho, West Elcho, East Upham, West Upham and Neva) completely mapped, one township (Antigo) very near completion, one township (Rolling) approximately half completed and one township (Norwood) was scheduled for completion in 2005. As of May, 2010 and in addition to those townships mapped prior to 2005, the following townships are not complete: Antigo, Rolling, Norwood, Polar and the north two survey townships in Wolf River. The parcel mapping contractor is currently working on finishing the south part of Wolf River, being 31-14 and the west 12 sections in 31-15.

Aerial photography

Langlade County is a participant in the 2010 Wisconsin Regional Orthophoto Consortium and will be acquiring color leaf-off orthophotos to supplement the 2008 NAIP color photography and the 2003 black and white photography currently offered on the County GIS website.

Wide area network (WAN)

A 2002 amendment to the 1999 Land Records Plan allowed the County to use Land Records Modernization funds to proceed with the development of a WAN, very necessary for the successful implementation of a GIS. This provided the basic computer infrastructure necessary to develop a GIS.

Geographic Information System (GIS)

Our GIS website went online in 2005 as planned using the WebGuide3 program developed by Applied Data Consultants (ADC) of Eau Claire, WI. The site is hosted by ADC of Eau Claire. Comments from daily users have resulted in changes and

updates to make the site more user friendly. The County is anticipating an update from WebGuide3 to WGXtreme (WGX).

C. New Initiatives

1. Proposed projects (listed in no specific order)

Web site. Encourage County departments to start envisioning web use as a means of reducing office traffic. Encourage departments to make more simple forms and documents available online as a service to the taxpayers. Work to make more land information available through the Website. Updating from WebGuide3 to WGXtreme (WGX) will make adding users and data to the site much easier and will include features to enhance the ease of data access.

WLIP We will continue to monitor developments of the Wisconsin Land Information Program (WLIP) Internet Land Information Clearinghouse.

Forest stand mapping. The County manages approximately 128,000 acres of County Forest lands. GIS has been proven as an effective forest management tool. The County Forestry Department will continue developing stand mapping within a GIS . The Forestry Department is securing a color infrared leaf on aerial product in 2010 which will be added to the list of aerial selections on the County GIS website.

Public recreational trail maps. In cooperation with the Forestry & Recreation Department and the County Community Development Agency, develop/acquire data for countywide trails mapping and display/access on the County GIS website.

Large format copier. The Land Records and Regulations Dept. replaced its large format copier in December, 2005 with an Oce' brand copier.

Digital land records. Continue to develop imaging within various departments. Electronic document imaging is a very cost effective way of distributing information, especially via the Internet. A PLSS corner tie sheet scanning is in progress. This information will be made available via the Internet to users of the County GIS.

Addressing system. Enhancements to the existing system may be implemented to facilitate issuing of accurate addresses and possibly updating and revising existing addresses or addressing procedures

Emergency response. Continue development of 911 systems (E911 and wireless 911) in cooperation with Sheriffs Department. Continue to assist local fire departments with mapping, response planning and GIS needs.

Survey equipment. New surveying equipment (both conventional robotic and RTK GPS) was acquired in 2009. This equipment should serve the County well for 6 - 8 years.

Public Land Survey System maintenance. The initial investment in the restoration and/or establishment of PLSS corners is a substantial amount of man power and finances. Maintenance of these corners needs to be addressed to protect the Counties initial investment in this work.

Large format color inkjet plotter. The County acquired a Hewlett-Packard large format color inkjet plotter in May, 1999. The machine has been so reliable that a planned replacement has been delayed. Funds are available if the machine suffers a catastrophic failure

Digital orthophotography. Langlade County is a participant in the 2010 Wisconsin Regional Orthophoto Consortium and will be acquiring color leaf-off orthophotos. It is anticipated that another Consortium effort to acquire photography will be organized for a 2015 aerial project. It is anticipated that Langlade County will be a partner in that effort as in 2010.

Staffing. As applications are implemented, data sets created and maintenance responsibilities increase, the County will continue to evaluate the need for additional staff. A GIS project coordinator/specialist will be needed to ensure complete and efficient utilization of past, present and future efforts and expenditures. A parcel mapping contractor has been doing the parcel mapping for the County.

Parcel mapping maintenance needs are addressed on an 'as needed' basis.

Computer hardware and software. Will be updated as needed to maintain efficiency in operations. Industry standard hardware and software will continue to be utilized. Handheld and/or mobile devices may be employed to allow for making numerous data sets available to field staff.

Interdepartmental communications. The new Land Information Council will promote the sharing of technology and information resources among departments in a effort to distribute more land information over the internet.

2. Assistance requested

a) The County has actively sought outside assistance prior to implementing projects and will continue to do so for our new initiatives. The County will continue to utilize a consultant to host the GIS website. It is anticipated at the web hosting application will need to be upgraded in the near future to better serve the public. The County Land Records & Regulations Department has Internet

connectivity and utilizes the WLIP Internet Land Information Clearinghouse and Technical List Server Service as needed.

- b) At some point in the future, the County must realize that a commitment to local funding of a GIS must be made. A step in the right direction is that the county has established a Technology fund and coordinates purchases to ensure compatibility. Additionally, the County earmarked an additional amount of money from the sale of the old surveying equipment, to be used for parcel mapping. It is imperative that the WLIP continue so the retained fees and the grant funds are available for ongoing and new initiatives in Langlade County. It is important that the Wisconsin Land Information Program continues to be focused on creation and maintenance of land information data sets to support all land information. Continued technical assistance in this area is very important. The County feels that the WLIP Education and Training grant money amount, currently set at \$300, should be dramatically increased, at least enough to cover a course taught by certified ESRI instructors.
- **c**) The County will continue to follow County ordinances and State statutes for procurement of services/products related to this Plan.

14 Problems encountered

The major anticipated problems in continuing the development of a GIS are: garnering the needed support and funding, and hiring knowledgeable staff. User support and feedback has helped get the bugs out of the GIS system, and has provided information for future upgrades. The support for a Web based GIS is improving as more data is available and as we can show more of this information to the end users, but additional funding and staffing are the drawbacks which are slowing the rapid deployment and enhancements of the system. The County GIS website has been online since 2005. At this point, September 2010, only about half the parcels are mapped and available online. The need exists to complete the parcel mapping as soon as possible, which is why that is the County focus and goal for the next 5 years. Funding for parcel mapping is critical for a timely completion of the parcel mapping project.

We have successfully dealt with unanticipated problems as they occurred. It would be a huge problem for the County to continue the development of the GIS and parcel mapping efforts if the WLIP grant program were eliminated or reduced. With the local and national financial difficulties, it is imperative that the WLIP continue to assist Counties with reaching their plan goals.

D. Custodial Responsibilities

Following are the Langlade County departments and their land records custodial responsibilities. Text within { } indicates whether we HAVE, would LIKE, or WILL accept custodianship of the data. The authority for custodianship is noted in (). An * indicates that the records are necessary for the operation of the office but are not

specifically mandated by a governing body. Information currently residing on the AS400 is noted (AS400).

REGISTER OF DEEDS

Record deeds, mortgages, easements, state and county plat maps, certified survey maps, transportation project plats and other related documents. {Have}(§59.43) Image most of the above mentioned records as they are received. {Have}(§59.43) Maintain tract index (AS400) of real property. {Have}

Maintain grantor/grantee index. {Have} (§59.43)

Redaction of SS numbers from electronic documents so as to render that data non-viewable on records accessible on the Internet {Have}(§59.43 (2)(L))

REAL PROPERTY LISTER

Maintain description and ownership information (AS400) of all parcels of property. {Have}(§70.09)

Maintain information on school and other special district codes. {Have}(§70.09)

Maintain tax rates and special assessment information. {Have}(§70.09)

Cooperatively with Land Records Technician, maintain existing hard copy parcel maps. {Have}(§70.09)

Cooperatively with Land Records Technician, maintain digital parcel maps. {Have}(§70.09 & Internal)

LAND RECORDS TECHNICIAN

Cooperatively with Real Property Lister, maintain existing hard copy parcel maps. {Have}

Cooperatively with Real Property Lister, maintain digital parcel maps. {Have} Maintain/update GIS coverages. {Have}

Maintain Parcel Mapping procedures booklet. {Have}(Internal Policy)

Maintain aerial photography. {Have}(Internal Policy)

COUNTY SURVEYOR/LAND RECORDS COORDINATOR (LIO)

Maintain information on PLSS (Public Land Survey System) corners including tie sheets and section summary sheets. {Have}(§59.45)

Maintain information on the high accuracy network (HARN) densification in the county. {Have}(§59.45)

Implement Land Records Modernization Plan {Have} (§59.72)

Perform duties of Land Information Officer. (Have) (Internal Co. Board resolution) File and index private survey maps. {Have}(§59.45)

File and index field notes and other survey source documents. {Have}(§59.45)

ZONING

Maintain zoning maps for unincorporated areas. {Have}(§59.69)

Maintain private sanitary system site plans. {Have}(§59.69)

Maintain shoreland restoration plans {Have} (Internal Policy)

Maintain permit database (AS400). {Have}(Internal Policy)

File wetlands and FEMA maps. {Have}(Internal Policy)

File USGS 7.5 minute quad maps. {Have}(Internal Policy)

LAND CONSERVATION

File soils maps and tables. {Have}

HIGHWAY DEPARTMENT

File right-of-way plats and construction plans. {Have}(Internal Policy)

SHERIFF'S DEPARTMENT

Maintain E911 system (including W911). {Have}(Internal Policy) Maintains Computer Aided Dispatch (CAD) system. (Stat. 146.70)

FORESTRY DEPARTMENT

Maintain forest stand data and compartment maps {Have}(Internal Policy)
Maintain historical aerial photography. {Have}(Internal Policy)
Maintain and develop county recreational trail maps. {Have}(Internal Policy)

EMERGENCY GOVERNMENT

Maintain emergency service network data and maps. {Have}(Internal Policy)

TREASURER

Maintain tax information (AS400) for all parcels. {Have}(§29.25)

E. Framework Data, System Implementation and Statewide Standards

1 Geographic Positioning Reference Frameworks

- a. Geodetic control networks. In 1994 Langlade County completed partial geodetic densification from stations within the Wisconsin High Accuracy Reference Network (HARN). This project was done in cooperation with Oneida, Vilas and Shawano Counties and funded with WLIP grant money. The network in Langlade County consists of 18 1 & 2 ppm stations and 16 4ppm stations, all of which were established using the "Guidelines to Support Densification of the Wisconsin High Accuracy Reference Network (HARN) using Global Positioning System (GPS) Technology" standards specifications which were current at that time. As needed, additional "local project control" is surveyed using County GPS equipment. Coordinate values are available in Langlade County Coordinates. The County assumes the custodial responsibility for the densified control stations. If the county Geodetic networks needs to be densified, applicable standards for this type of work will a requirement of the project..
- b. Public Land Survey System. The County has a corner remonumentation program that requires compliance with the requirements of Wisconsin Administrative Code AE 7.08 and state statutes. We plan to continue the program as funding allows. We are establishing coordinates on the PLSS corners primarily by conventional survey techniques, attempting to meet

FGDC Third-order, Class1 accuracy requirements. Where possible, Langlade County adheres to "Standards and Guidelines for Cadastral Surveys Using GPS Methods" by the USDA Forest Service and the US Dept. of the Interior, BLM, published in April, 2000. In forested areas, we occasionally utilize coordinates of sub-meter accuracy to develop parcel maps. The County maintains the custodial responsibility for the PLSS.

2 Orthoimagery and Georeferenced Image Base Data

- a. The county does not have photogrammetric base maps
- b. Digital Orthophoto. In 2003, the County purchased digital scans of aerial photography film acquired by Aero-Metric, Inc. In exchange for a copy of the photography, North Central Wisconsin Regional Planning Commission created and ortho product using software called "OrthoMapper". In exchange for a copy of the photography, the WiDNR created MrSid images of the photography. In 2010, the County was a participant in the Wisconsin Regional Planning Commission aerial photography program. As of September 2010, the County is expecting delivery of that product any day. There have been requests for higher resolution photography. This issue will be addressed during the next opportunity.
- c. Digital raster graphics. The County does not maintain a digital raster data set. Users are directed to sources of paper map products or the DNR WebView site. The County will review the idea of including digital topographic mapping as part of the website.
- d. Satellite Imagery. The County does not have Satellite imagery and has now immediate plans for acquisition.
- e. Oblique aerial imagery. The County does not have Oblique aerial imagery and has no immediate plans for acquisition.
- f. Historical aerial imagery. The County will maintain the 2003 digital aerial photography along with the 2008 NAIP photography as part of the imagery products on the GIS website. When the new 2010 imagery product is received, it will be made the default imagery, while allowing users to toggle between the older products.

3 Elevation Data Products and Topographic Base Data

- **a.** Digital Elevation Model (DEM) The County has utilized the USGS 30m digital elevation model in the past. A new DEM has been purchased as part of the 2010 orthophotography effort.
- **b.** Digital terrain models (DTM). The County does not have a DTM.
- **c.** Triangulated irregular network (TIN) The County does not have a TIN.
- **d.** Contours. The County does not have contour mapping.
- e. LIDAR data. The County does not have LIDAR data.
- **f.** IFSAR data. The County does not have ISFAR data.

4 Parcel Mapping

a. The County parcel mapping shows boundaries in relation to the Public Land Survey System (PLSS) but are not all survey based, therefore they

are not suitable for use by local governmental units for accurate land title boundary lines or land survey line information. While attempts are made to make the parcel mapping as accurate as reasonably possible, the mapping is not suitable for the purposes stated above.

- b. It is difficult to prepare property maps without referencing the PLSS. See a. above
- c. Langlade County's spatial data is all relative to the Langlade County Coordinate System, developed by the Wisconsin Department of Transportation. This System is mathematically relatable to the North American Datum of 1983, 1991 adjustment {NAD 83(91)}.
- d. The mapping parcel ID number is directly related to the Tax Roll database on the AS400 system. The parcel number provides the link between the map and the database information. Parcel numbers are assigned by the Real Property Lister.

Langlade County complies with the WLIB digital parcel mapping standard.

5 Parcel Administration and Assessment Information

- Langlade County's data base design supports integration of digital parcel maps with property and ownership information by linking data through key fields
- b. Activities associated with modernizing the use of parcel level information and created from and in support of parcel maps, and in conformance with applicable standards when possible, include:

Parcel ID

The parcel ID number is an attribute in our GIS parcel coverage. Tax Data

The tax database is designed so information can be accessed by PIN, owner name or site address. This information will be linked to the GIS parcel coverage.

Site Address

Maintained and available for view or query via the GIS website Owner Name & Address

Maintained and available for view or query via the GIS website.

Description/current document pertaining to parcel

Maintained and available for view or query via the GIS website Document Imaging

Certain document images that are the custodial responsibility are available on-line via the Register of Deeds document site:

http://langladewi.roddirect.com/

Real estate transactions

Certain real estate transaction document images that are the custodial responsibility are available on-line via the Register of Deeds document site:

http://langladewi.roddirect.com/

Zip codes are only included to the extent that they exist within the mailing or physical address related to the parcel.

Langlade County complies with the WLIB digital parcel mapping standard.

6 Street/Road Centerlines, Address Ranges and Address Points

- a b & c Transportation network. Centerlines. The County has a cleaned, verified road centerline file. This file contains all public and major private roads. As problems are discovered with this information, it is corrected. The County plans to maintain this centerline file of all named public and private roads in the County. Right of way lines are generally input direct from right-of-way plan information when available or taken from whatever other information is available (plats, maps, CSM's, old road records etc)
- d & e The County has address ranges on all centerline segments. In 2005, field verification was completed and address issues are still being resolved.
 - Address numbers are assigned in the Land Records & Regulations Department, which also maintains address maps and works with local municipalities in reconciling conflicting addresses, road names and locations of roads. We will continue to cooperate with the townships ensure that the County road map is accurate and has accurate street names shown
- f Currently addresses are maintained at the driveway points, structures have not been located nor addressed.
- g. Road names. In 2004, NCWRPC compiled a list of all road names in the County. The County has resolved most problems with road naming.
- h. The functional class for the local roads is determined by the WIDOT.
- i. The Sheriffs dept maintains a listing of place/landmark name for use in emergency situations, where, for example a 911 caller would us a local landmark name instead of an address.
- j. Integration with the County's Master Steet Address Guide (MSAG) The Land Records and Regulations Department cooperates with the Sheriffs department to maintain an accurate MSAG.
- k. Ability to support emergency planning, routing, response and mapping The Land Records and Regulations Department provides data to the Sheriff's department as needed for routing, planning and response purposes.
- 1. Ability to support Wireless 911.

 The Sheriff's department has implemented a program to support landline and wireless 911 calls. This program has proven itself effective and relatively accurate on several occasions.

7 Hydrography, Hydrology and Wetlands Mapping

The County plans on acquiring these GIS coverage's from the WiDNR or other sources as they become available and if there is a need.

- a. Hydrography The County uses DNR hydrography coverage's
- b. Watersheds
 - DNR watershed data is referred to as needed.
- c. Hydrogeology
 - The does not maintain or use this data set.
- d. Impacts on the environment (groundwater contamination, storm water) The County does not use or maintain this information.
- e. Wetlands mapping activities. The County has the digital DNR wetlands mapping as a layer in the GIS.

8 Soils Mapping, Land Cover and other Natural Resource Data

- a. Soils mapping activities. The original Langlade County soil survey was completed in 1983. We are using the Natural Resource Conservation Service (NRCS) digital soils survey data from 2002.
- b. Land cover. The County does not maintain a current land cover data set.
- c. Forests The County does not maintain a forest cover data set.
- d. Geology. The County does not maintain a geology data set.
- e. Hydrogeology. The does not maintain or use this data set.
- f. Non-metallic mining. The County has a non-metallic mining ordinance but does not maintain a digital data set.
- g. Endangered resources The County does not maintain or use this data set.
- h. Impacts on the environment. The does not maintain or use this data set.

9 Land Use Mapping

Existing and future land uses have been identified in the County Comprehensive land use plan.

10 Zoning Mapping

- **a.** Zoning districts. The County plans to add a Zoning coverage to the GIS information in the future. Zoning districts are mapped in accordance with the Langlade County Planning and Zoning Ordinances.
- b. Shorelands. We maintain a DNR 24k hydro layer within the GIS. The GIS zoning coverage will includes shoreland jurisdiction areas (1000' buffer from lakes, 300' from streams) countywide, and the zoning districts adopted by the County Board.
- c. Floodplain and floodways The County presently uses the hardcopy FIRM maps. We will be acquiring the Digital Q3 Flood Data if FEMA makes the data available. As a substitute, we may consider scanning our existing maps for inclusion as an independent data set available for viewing only and without certification.
- d. Environmental corridors The does not maintain or use this data set.
- e. Burial sites The does not maintain or use this data set.

- f. Archeological sites The does not maintain or use this data set.
- g. Historical/cultural sites The does not maintain or use this data set.

11 Election and Administrative Boundary System

- a. State Outline. County Boundaries. Minor Civil division boundaries. We have these existing digital files which were developed in-house or obtained from different sources. The civil boundaries within Langlade County were constructed using from different sources and will be updated as more accurate data is created by the parcel mapping process; corrected dependent upon accurate location of the PLSS lines.
- b. Utility districts. Tax incremental financing districts. School districts. Lake districts. Public lands. The tax database includes a code designating which parcels are within these districts. Graphic boundaries will be developed within the GIS.
- c. Legislative districts. Reconciled election system boundaries. Census geographies. Native American lands. Agency administrative districts and Zip Codes. The County will develop legislative districts and election system boundary information as the need arises.

12 Critical Infrastructure and Facilities Management

- a. Parks. The County park system is shown within the GIS.
 - b. Airports. The only airport in the County is owned by the County and is shown on all County mapping.
 - c. Recreational Trails. Recreational trail maps are generally produced and maintained by the County Forestry Department. A recently abandoned railroad corridor is being developed into a recreational trail by the WiDNR. Portions of the Ice Age Trail traverse the County and are included in the County mapping.
 - d. Utilities. Utility features/database is not maintained by the County. Provisions have been made to share County data with utility providers on request.
 - i. Landfills. The county has a coverage (received from the WiDNR) showing former landfills and accesses this information as needed.
 - k. Boat landings and public access locations The county has an inventory of all public boat landings and public access points in the County and will eventually include this data in the GIS.

13 Database Design and Systems Implementation

The County's tax parcel database was designed to include the Dept of Revenue Land Use Classification assessment code for land use, ie. residential, commercial, ag, etc. If needed, a graphic representation could be generated in the GIS when the parcel mapping is completed. The database has been designed to support GIS mapping and queries.

- a. Design Evaluation. The County is using a proven database design developed by Nancy Von Meyer and designed in compliance with all applicable standards and practices.
- b. Project approach The County identified key fields or data elements needed to support sharing of data sets and incorporated them in our data bases whenever practical to promote integration. The County uses existing standardized coding schemes and field names.
- c. Timeline. The County is using the tax parcel database currently in day-day operations.
- d. Metadata the County plans to maintain GIS metadata for coverage's and our land records tabular data created by the County.
- e. Security/Privacy. The County has implemented standard security measures to ensure that data cannot be accessed/altered by unauthorized users.
- f. Implementation and Maintenance Strategy. The County will perform normal database maintenance. A routine data backup procedure is in place and strictly adhered to.

F Public Access

- a. Use of technology to facilitate efficient access. The County currently has at least 3 public access computer terminals available to the public for searching tabular property ownership data. The GIS has the added capability of accessing different GIS coverage's including parcels, roads, water, wetlands etc.. We will continue to monitor developments of the WLIP Internet Land Information Clearinghouse.
- b. Data sharing policies. The County has informal data sharing arrangements with several adjoining counties and the North Central Wisconsin Regional Planning Commission. The County GIS website is hosted by ADC of Eau Claire, WI. Data from the County AS400 system is downloaded daily to ADC servers.
- c. Open access to data in existing format. Langlade County adheres to the Wisconsin Open Records Law for access to any land record.
- d. System security. The AS/400 has built-in security, which is managed by the Information Services (IS) Department. The IS department maintains a back-up/security plan for all data. The system is occasionally successfully tested to ensure no data loss. The GIS system will allow only the custodian of data to edit that data, all others users will have view/query capabilities only. The system is also protected from hackers etc. by normal firewalls and security software.
- e. Privacy policies. Langlade County adheres to the Wisconsin Open Records Law and complies with State statutes for access to restricted records. We will be monitoring the industries and the publics' concerns related privacy and distribution of data.

f. Use of \$1 fee designated for land information and housing data as per Sec 59.72(5)(b)(3). Langlade County will use these fees as required by Statute.

G Integration and Cooperation

- a. Formal data sharing agreements. The County has informal data sharing arrangements with other County departments, the City of Antigo, and State agencies. The County will continue these arrangements and pursue others as opportunities arise.
- b. Cooperative arrangements. The County has participated in cooperative projects (for example, with the North Central Regional Planning Commission and the WiDNR on the 2003 ortho project) and plans on pursuing others as opportunities arise. We anticipate continuing cooperative agreements for trail mapping, special purpose mapping, with private surveyors and other county departments. We currently have an agreement with the City of Antigo to allow the City to use the County GPS equipment.
- c. Consortia. The County will evaluate opportunities as they arise. The County currently plans on joining in the 2010 Regional Planning Consortium for orthophotography.
- d. Collaborative arrangements. County staff seeks and acquires technical assistance as needed from other like counties. We 'trade/share' data with adjoining counties, for example survey grade coordinates have been determined by Langlade County and shared with adjoining Oneida, Lincoln and Shawano Counties.
- 1. The county will review and act on opportunities for cooperative relationships with other counties and/or private sector groups as they present themselves.
- 2. Any potential partners and mutual projects will be reviews as necessary. As of now, there are no mutual county projects taking place.
- 3. Because the primary focus of our current plan is parcel mapping, only the necessary departments needed for that are involved, being zoning, property listing, surveying and treasurer. Other departments are benefiting from the currently available mapping and associated information.

H Communication, Education, Training, and Facilitated Technical Assistance

- a. Documentation of County data. The County will develop and maintain a data dictionary for data sets we create as part of the development of a GIS
- b. Resources available. The County will continue to participate in workshops, training sessions, seminars, user groups, etc., as appropriate and where budget allows. The County currently budgets funds to supplement the annual \$300 Education and Training Grant. We will continue to seek technical assistance from hardware/software suppliers as needed.
- c. Identification of customers' needs. The County has and will continue to pursue input from customers/users and staff as to current and future needs.

- The initial meeting of the Land Information Council has provided feedback in this area.
- d. Coordination of education/training with departments, agencies, associations and educational institutions. As opportunities arise, the County participates in local education/information programs and presentations on land information topics. Staff members have made presentations to local real estate professionals, other departments and local units of government. We will continue to share our experiences with others.
- e. Use of technology to facilitate education and training. We have access to a satellite down link facility, the UW Extension ETN system and the Internet and will use the systems as deemed appropriate.
- f. Use of Clearinghouse and Technical Assistance List Server. The County has access to the Internet that allows for use of the clearinghouse and technical assistance list server. We plan to monitor the development of the clearinghouse and standards adopted.
- g. Use of Land Information Officer education and training funds. The County uses those funds to send the LIO to WLIA training sessions, regional meetings and the WLIA Annual meeting..

I. Administrative Standards Not Associated With Foundational Elements.

Plans represent an agreement between the county and the Wisconsin Land Information Board or other agency charged with the Wisconsin Land Information Program (State). This agreement is intended to effectuate the objectives of the Program as embodied in the enabling legislation. In order for a Plan to be acceptable to the State, the State and the county agree and consent as follows below.

- 1. The county agrees to observe and follow the statutes relating to the Wisconsin Land Information Program and other relevant statutes.
- **2.** The County agrees to permit the Wisconsin Department of Administration access to books, records and projects for inspection and audit.
- **3.** The county agrees to complete the GIS Inventory Survey (survey required annually by the WLIP).
- **4.** The county agrees to update the plan every 5 years and in the interim if the plan should change.
- **5.** Development and implementation of an acceptable Plan confers certain benefits on local government within a county, including continued eligibility for Program funding. A peer review process will be used to assess Plan acceptability by the land information community.

END